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Instructions

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Class 87

IMPORTANT

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Description

Class 87 pump control panels include a Class 14 magnetic starter with either a circuit breaker or a fusible disconnect switch, a START push button and a HAND-STOP-AUTO selector switch. These components are mounted in a NEMA 3R weather resistant enclosure with a gasketed door that can be easily removed. Sizes 1 through 4 are furnished with a watertight conduit hub on top and conduit knockouts on the bottom.

The Class 87 pump control panel can be supplied with either Class 10 ESP100 quick trip solid state overload or a ambient temperature compensated bimetal overload.

Enclosures for Sizes 1 through 4 are furnished with pole mounting brackets: Size 5 with floor mounting legs. Size 6 is base mounted.

Pump panel optional accessories include back-spin timers, lightning arresters, control transformers, auxiliary interlocks, pilot lights, fuse clip kits and undervoltage relays.

Installation

1. Examine each device on the panel for shipping damage and if any is noted, notify carrier for claim. Do not apply power to any damaged device.
2. Operate disconnect switch or circuit breaker with external handle to verify operation.
3. Manually operate magnetic starter to determine that moving parts do not bind.
4. Check horsepower and current rating of motor or other load with pump control panel rating.
5. Install in conformance with National Electric Code and any applicable local electric codes. Install the proper size dual element fuses in the disconnect switch (fuses are not supplied as part of pump control panels).
6. Firmly fasten enclosure to solid mounting surface.
7. Install conduits and necessary grounding means and wire pump control panel in accordance with the wiring diagram supplied. Joint compound or the equivalent is recommended on conduit threads to prevent water from entering pump control panel. If top conduit hub is not used, be sure to plug it securely to prevent entrance of water.
8. Check that all wiring is secure and does not interfere with proper operation of any devices.
9. Check that all wiring connections are tight, including factory connections.
10. Refer to the heater table on the door of the enclosure and install the proper overload heaters for the specific motor being controlled (heaters are not supplied as part of pump control panels).
11. Make a final installation check of steps 1 through 10 and remove any foreign material from the enclosure.
12. Close and latch door before applying power.
13. Apply power by placing the disconnect handle in the ON position.
14. Rotate selector switch to HAND position and depress START button.
15. Check for proper pump motor rotation. Motor rotation can be reversed by interchanging any two (motor) leads at the starter load connections.

General Maintenance

⚠WARNING

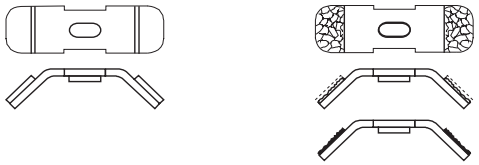
Hazardous voltage.
Can cause death, serious personal injury, or property damage.
Disconnect power before working on this equipment.

In many applications, the magnetic control can be expected to be trouble free during the entire operating life of the pump. Routine inspection and maintenance as follows will help to insure this.

1. Periodically clean the inside of the enclosure by blowing out dust, etc. which may have accumulated.

(For Engineering Reference Only - Rev. E)

2. Periodically examine the contacts - cleaning is not required since the contact material is a special preoxidized silver cadmium oxide alloy. Replacement is required only when the contact material is almost worn down to the backing. A complete pole consists of stationary and movable contacts and a contact spring. This feature insures proper contact mating which, in turn, provides maximum life.



3. Check magnet poles for foreign deposits and if present, carefully clean pole faces with solvent.
4. Check all screws for tightness.
5. Depress test-trip button on overload relay and then reset overload relay. This insures the relay's ability to open the control circuit if necessary.